Remarks/Arguments:

Claims 1-15 are pending. Claims 9-15 have been withdrawn. Claims 1 and 8 have been amended. No new material is introduced herein.

Applicants acknowledge with appreciation the Examiner's finding that claim 8 includes allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim.

Claim 1 has been amended to include features of claim 8. Applicants have not amended claim 8 into independent form because it is submitted that the base claim is allowable for the reasons set forth below.

Claims 1-6 were rejected under 35 U.S.C. §102(b) as being anticipated by Shiga et al. (EP-0346596A2) (hereafter referred to as EP '596) or (U.S. Patent No. 4,955,683) (hereafter referred to as US '683). Applicants' respectfully draw the Examiner's attention to the patent number of US '683 as corresponding to 4,955,683 and not to 4,055,683. US '683 was filed on 4/18/89 and claims priority to JP-63-100927 and JP-63-100928, both having priority date 4/22/88. EP '596 was filed on 4/21/89 and claims priority to the same applications as US '683. Thus, it is submitted that claim 1 is patentable over EP '596 for the same or similar reasons as set forth below for US '683.

It is respectfully submitted that this ground for rejection is overcome by the amendments to claim 1. In particular, Shiga et al. do not disclose or suggest:

> ...a solder preform ... having a groove... the groove being larger in size than the optical fiber...
>
> ...the groove provides 25 μm to 105 μm of total clearance between the optical fiber and a width of the groove, a bottom clearance of 25 μm to 100 μm underneath the optical fiber, and a top clearance of 35 μm to 140 μm above the optical fiber...

as required by claim 1. Claim 1 has been amended to include features from claim 8 which the Examiner acknowledges includes allowable subject matter.

US '683 disclose an optical module having a fiber saddle 5 where an end 1a of an optical fiber is positioned to be optically connected to a pin-photodiode (Col. 2, lines 46-49 and lines 67-68). A pre-formed structure 7 made of solder is used to attach the optical fiber end to fiber saddle 5, Fig. 3. The end of the optical fiber may be positioned on top of the fiber saddle after the pre-formed structure and fiber saddle are joined. US '683 disclose that optical fiber end 1a is disposed in the gap between the pre-formed structure and fiber saddle (Col. 3, lines 20-25). US '683, however, is silent regarding an amount of a clearance provided between the preformed-structure to the optical fiber in the gap. Thus, US '683 do not include all of the features of amended claim 1.

Because EP '596 or US '683 does not disclose all of the features of claim 1, claim 1 is not subject to rejection under 35 U.S.C. §102(b) as being anticipated by EP '596 or US '683. Because claims 2-6 include all of the features of amended claim 1 from which they depend, claims 2-6 are not subject to rejection under 35 U.S.C. §102(b) as being anticipated by EP '596 or US '683.

Claims 1-6 were rejected under 35 U.S.C. §102(b) as being anticipated by Boisgontier et al. (U.S. Pat. 4,984,866). It is respectfully submitted that this ground for rejection is overcome by the amendments to claim 1. In particular, Boisgontier et al. do not disclose or suggest:

> ...a solder preform ... having a groove... the groove being larger in size than the optical fiber...
>
> ...the groove provides 25 μm to 105 μm of total clearance between the optical fiber and a width of the groove, a bottom clearance of 25 μm to 100 μm underneath the optical fiber, and a top clearance of 35 μm to 140 μm above the optical fiber...

as required by claim 1. Claim 1 has been amended to include features from claim 8 which the Examiner acknowledges includes allowable subject matter.

Boisgontier et al. disclose a coupling device between an optical fiber and an opto-electronic component. To position the optical fiber, a micromanipulator brings the end of optical fiber 43 into an optimum optical coupling position and is then raised into a soldering position to take account of solder shrinkage. A preformed bridge of solder 70 is then placed on

optical fiber 43 over a keying area 64 after the optical fiber has been aligned (Col. 12, lines 53-59). Fig. 8 of Boisgontier et al. show a space provided between optical fiber 43 and preformed bridge strip of solder 70. Boisgontier et al., however, is silent regarding an amount of clearance provided between the preformed bridge strip to the optical fiber. Thus, Boisgontier et al. do not include all of the features of amended claim 1.

Because Boisgontier et al. do not disclose all of the features of claim 1, claim 1 is not subject to rejection under 35 U.S.C. §102(b) as being anticipated by Boisgontier et al. Because claims 2-6 include all of the features of amended claim 1 from which they depend, claims 2-6 are not subject to rejection under 35 U.S.C. §102(b) as being anticipated by Boisgontier et al.

Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over by EP '596 or US '683 and further in view of Enochs (U.S. Pat. No. 4,702,547). Claim 7, however, includes all of the features of claim 1 from which it depends and is patentable over EP '596 or US '683 for at least the same reasons as claim 1.

Enochs does not supply the deficiencies of EP '596 or US '683 because it does not disclose or suggest " the groove being larger in size than the optical fiber.....the groove provides 25 μm to 105 μm of total clearance between the optical fiber and a width of the groove, a bottom clearance of 25 μm to 100 μm underneath the optical fiber, and a top clearance of 35 μm to 140 μm above the optical fiber..." as required by claim 1.

Enochs discloses that an optical fiber is positioned within a groove of a silicon retaining member. Enochs disclose that "for an optical fiber which is about 125 microns in diameter, it is preferred that the groove be approximately 125 microns wide and 125 microns deep" (Col. 3, lines 56-59). Thus, Enochs does not disclose or suggest that the groove is larger in size than the optical fiber and that there is a clearance between the optical fiber and the retaining member. Furthermore, Enochs is silent on providing any clearance between the groove to the optical fiber.

The cited art taken singularly or in combination do not disclose or suggest the features of claim 1. Accordingly, claim 7, which includes all of the features of claim 1 from which it depends is also not subject to rejection under 35 U.S.C. §103(a) as being unpatentable over EP '596 or US '683 and further in view of Enochs.

In view of the foregoing amendments and remarks, Applicants request that the Examiner reconsider and withdraw the rejection of claims 1-7 and the objection to claim 8.

Respectfully submitted,

Kenneth N. Nigon, Reg. No. 31,549
Attorney(s) for Applicant(s)

KNN/pcb

Attachments: Abstract

Dated: November 28, 2005

☒ P.O. Box 980
Valley Forge, PA 19482
(610) 407-0700

☐ P.O. Box 1596
Wilmington, DE 19899
(302) 778-2500

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. 18-0350 of any fees associated with this communication.

I hereby certify that this correspondence is being filed via Facsimile Transmission to Facsimile No. 1-571-273-8300 addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

November 28, 2005
Patricia C. Boccella

JAL_I:\MKPA\107US\10.05.05AMEND.DOC